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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/006,222

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Christian Oliver Paschereit

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7590

11/14/2003

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EXAMINER

COCKS, JOSIAH C

ART UNIT

PAPER NUMBER

3749

DATE MAILED: 11/14/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,222

Applicant(s)

PASCHEREIT ET AL.

Examiner

Josiah C. Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Receipt of applicant's amendment filed 9/8/03 is acknowledged.

Drawings

2. The drawing corrections were received on 9/8/03. These drawing corrections are approved. The formal drawings filed 9/8/03 incorporating the corrections are accepted by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by *Buchner et al.* (US # 6,056,538).

Buchner et al. discloses in Figures 1-5 a burner for production of a hot gas substantially as described in applicant's claim 5 including a burner (2) having an outlet edge and opening into a combustion chamber (8) downstream of the outlet edge, a fuel-air mixture flowing out from the burner outlet that forms an outflow boundary layer (see Fig. 1), and a structural element in the form of a shear layer fence/screen (15) that surrounds the fuel/air mixture and functions to

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change the thickness of the outflow boundary layer to prevent periodic flame/pressure pulsations within the combustion chamber (see col. 4, lines 55 through col. 5, line 38). *Buchner et al.* further discloses that the height of fence/screen (15) is substantially parallel to the flow direction (see Fig. 1). The examiner regards the location of the fence/screen (15) as essentially adjacent the burner outlet.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Buchner et al.* (US # 6,056,538).

In regard to claim 3, *Buchner et al.* does not limit the size of fence/screen (15) and discloses that the length of the screen may be varied as desired (see col. 5, line 61 through col. 6, line 5). Therefore, to have selected a height of approximately 5 mm would be simply a matter of optimizing the height of the fence/screen of *Buchner et al.* obtainable through routine experimentation and is not given any patentable weight. (See MPEP § 2144.05 (II)(A)).

In regard to claim 6, *Buchner et al.* discloses that the fence/screen (15) is made of high temperature resistance steel (See col. 6, lines 48-49). The examiner considers that a person of ordinary skill in the art would regard this disclosure as the equivalent of the sheet metal strip recited in applicant's claim.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Buchner et al.* as applied to claim 5, and further in view of *Dobbeling et al.* (US # 5,489,203) (hereinafter "*Dobbeling '203*")

Buchner et al. discloses all the limitations of claim 4 except that the burner is a double cone burner with tangential air inlet channels.

Dobbeling '203 discloses a burner in the same field of endeavor as *Buchner et al.* wherein the burner of *Dobbeling '203* is a double cone burner with tangential air inlet channels (see col. 3, lines 12-39). These burners are desirable in ensuring stable combustion with low levels of turbulence and minimized NO_x emissions (see *Dobbeling '203*, col. 2, lines 1-3). Further, these burners seek to induce better flame stability by initiating smaller pulsations (see *Dobbeling '203*, col. 2, lines 18-21).

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Therefore, in regard to claim 4, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the apparatus of *Buchner et al.* to incorporate a double cone burner such as that disclosed by *Dobbeling '203* to desirably obtain the recognized combustion stability and minimized NOx emissions of such a burner.

Allowable Subject Matter

9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 9/8/03 in regard to claims 3-6 have been fully considered but they are not persuasive. As noted in item 4 above, the examiner does not consider the limitation that the shear layer fence runs along the outlet edge "essentially adjacent" the burner to define over the location of the shear layer fence/screen of *Buchner et al.*

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc
November 10, 2003


JOSIAH COCKS
PATENT EXAMINER
ART UNIT 3749